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(54) **APPARATUS AND METHOD FOR  
PERFORMING FOURIER TRANSFORM**

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**ABSTRACT**

Provided are an apparatus and method for performing a Fourier transform. A method of performing a Fourier transform may include generating intermediate data by performing a one-dimensional fast Fourier transform (1D FFT) on data in a column direction, storing the intermediate data in a cell array in the column direction, reading out the intermediate data from the cell array in a row direction; and generating final data by performing a 1D FFT on the read-out intermediate data.

